

Agency Summary February 6, 2006

FISCAL YEAR
Budget Estimates

# **FY2007 Budget Request Summary**

\$ In millions	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
TOTAL NASA	16,623	16,792	17,309	17,614	18,026	18,460
Percent change yea	r-to-year	3.2%	3.1%	1.8%	2.3%	2.4%

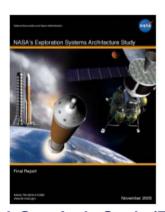
- NASA's FY 2007 budget request demonstrates the President's continued commitment to the Vision for Space Exploration.
  - FY 2007 budget request is a 3.2% increase\* above NASA's FY 2006 appropriated budget.
- NASA is implementing the priorities of Congress and the President within the resources requested.
  - NASA will continue assembly of the International Space Station with the minimum number of Space Shuttle flights necessary before its retirement by 2010.
  - Pending the results from the next test flight STS-121, NASA will determine whether the Space Shuttle can safely conduct a fifth servicing mission to the Hubble Space Telescope.
  - NASA will bring the Crew Exploration Vehicle on-line no later than 2014, and potentially much sooner. NASA is currently seeking industry proposals for the CEV. Over the next several months, NASA will evaluate these industry proposals, revise its independent cost estimates, and find workforce synergies and efficiencies between the Shuttle and CEV launch systems in order to refine estimates of when it is feasible to bring the CEV on-line.
  - NASA is seeking commercial industry proposals for the demonstration of commercial means to deliver cargo and/or crew to the International Space Station. If cost-effective commercial services are demonstrated to support the ISS, NASA will welcome and use them.
  - NASA's FY2007 budget provides \$5.3 billion for NASA's Science Mission Directorate (a 1.5% increase over FY2006), \$724 million for Aeronautics Research, \$197 million for Innovative Partnerships, and \$153 million for Education Programs.
  - NASA Science remains one the nation's crown jewels and a world leader, working closely with the science community and our international partners.

<sup>\*</sup> not including \$350 million FY 2006 emergency supplemental for Hurricane Katrina.

### **Key Documents**



Presidential Policy Directive February 2004



Expl. Sys. Arch. Study (ESAS) and Shuttle/Station Config. Options Team (S/SCOT) Results Summer/Fall 2005



NASA FY 2006 Appropriation November 2005



P. L. 109-155

NASA Authorization Act December 2005



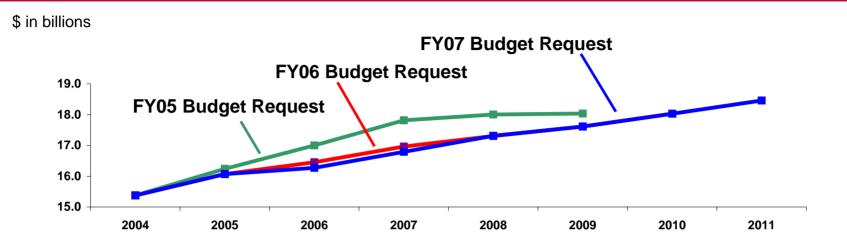
NASA Strategic Plan February 2006



FY 2007 Congressional Budget Justification February 2006

NASA is implementing the priorities of the President and Congress within the resources provided.

### NASA Budget Since the Vision for Space Exploration



### FY05 President's Five-Year Budget Request

- Agency Topline Original 'Vision' Budget provided \$1 billion more above NASA's FY04 topline runout \$11 billion towards Vision was offset internal to the Agency.
- Shuttle retirement Placeholder estimates used, defer detailed estimate to FY06.

### FY06 President's Five-Year Budget Request

- Agency Topline \$3 billion removed from NASA's topline runout for contribution towards deficit reduction – No change to objectives of Vision.
- Shuttle retirement Focus on Return To Flight resulted in lack of solid estimate, detailed estimate again deferred until the FY07 budget formulation process.

### FY07 President's Five-Year Budget Request

- Slight reduction in FY06 appropriation due to rescissions, and 3.2% growth in FY07 with outyear budgets increasing at about the rate of inflation.
- Exploration architecture defined by the Exploration Systems Architecture Study (ESAS).
- Credible estimate for Shuttle retirement costs based on results of the Shuttle/Station Configuration Options Team (S/SCOT) study.

# **FY 2007 Budget Request Highlights**

### Exploration

- NASA has now defined an architecture, and this budget request reflects specific plans for pursuing the President's exploration vision, including development of the Crew Exploration Vehicle (CEV) and its launch system no later than 2014, and potentially much sooner.
- Reductions are made to technology activities not directly contributing to nearterm priorities, with funds applied to ensuring timely development of the CEV.

#### Science

- Previously planned high growth rates in Science funding are moderated to
   1.5% in FY07 and 1% per year thereafter, preserving high priority missions.
- Shifts are made within the science portfolio among science disciplines, consistent with the FY 2006 Budget Amendment.
- Mars exploration is kept at roughly its current level allowing missions every 26-month opportunity, while human precursor activities are shifted out.

#### Aeronautics

- This request re-establishes NASA's dedication to mastery of Aeronautics core competencies in subsonic, supersonic, and hypersonic flight.
- Focuses research on activities appropriate to NASA's unique capabilities.
- Directly addresses the needs of the Next Generation Air Transportation
   System in partnership with the FAA and other agencies.

### **FY 2007 Budget Request Highlights**

### Space Operations

- Implements the results of major reviews (ESAS & S/SCOT) to define the requirements for meeting the policy objectives set forth by the President in the Vision for Space Exploration.
- Retires the Space Shuttle by 2010, meets ISS commitments to our international partners, and maintains good will for future international cooperation.
- Ensures that the Nation will have reliable, safe, and affordable access to space for NASA's human and robotic explorers while opening new exploration and research opportunities through the extension of human presence in space.

### Cross-Agency Support Programs

- This is a new direct budget category.
- NASA's education activities have a renewed focus on priorities and metrics.
- The Integrated Enterprise Management Program (IEMP) becomes a direct program to improve management information and financial management.
- Innovative Partnerships is moved to better address agency-wide needs.
- The Shared Capability Assets Program is established to ensure that NASA's unique facilities are adequately funded to address strategic needs.

# **Budget Adjustments**

 NASA made some adjustments to the budget structure to improve management alignment and efficiencies. The FY 2007 budget request reflects a number of net-zero transfers and key funding and organizational changes, many of which were previously identified in the FY 2006 Budget Amendment last July or the September FY 2005 operating plan.

#### Established new Cross Agency Support Programs:

- Established Advanced Business Systems (IEMP) as a separate program, with funding transferred from Corporate G&A and Center G&A.
- Shared Capability Assets Program (SCAP), established to improve agency-level decision making and management of shared assets.
- Innovative Partnership Program, including Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR), transferred from Exploration Systems Mission Directorate (ESMD).

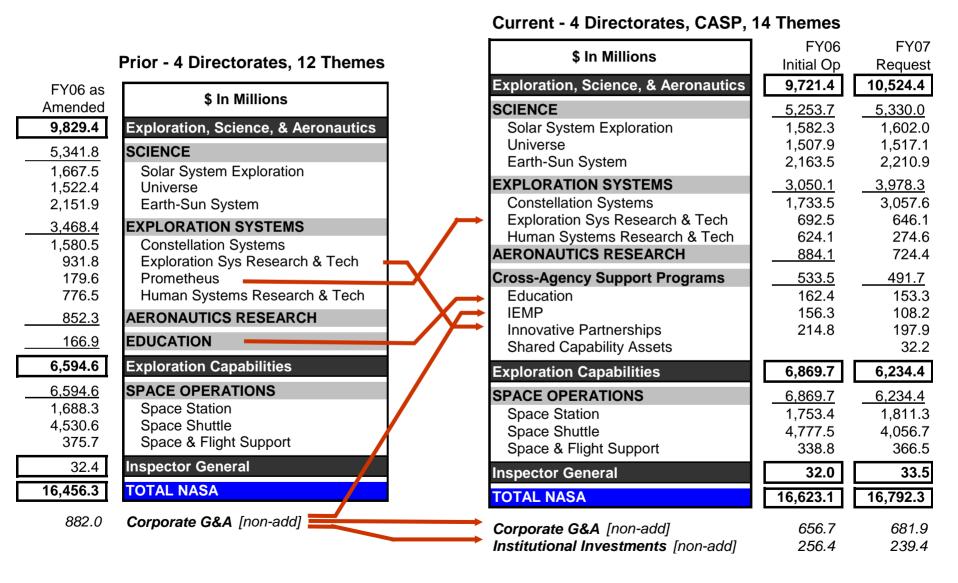
#### • Established new Agency-level Institutional Investments account:

- Funding for Institutional Construction of Facilities transferred from Center G&A.
- Balance of funding, including Environmental Compliance & Restoration transferred from Corp. G&A.
- Institutional Investments is spread to all programs similar to Corporate G&A.

#### • Program Transfers:

- Robotic Lunar Exploration Program transferred from Science Mission Directorate (SMD) to ESMD.
- Prometheus Nuclear Systems & Technology is no longer a Theme and is now a program in the Exploration Systems Research and Technology Theme within ESMD.
- International Space Station (ISS) Cargo Crew Services transferred from Space Operations Mission Directorate (SOMD) to ESMD.

### **Budget Adjustments**



# **FY 2007 Budget Request**

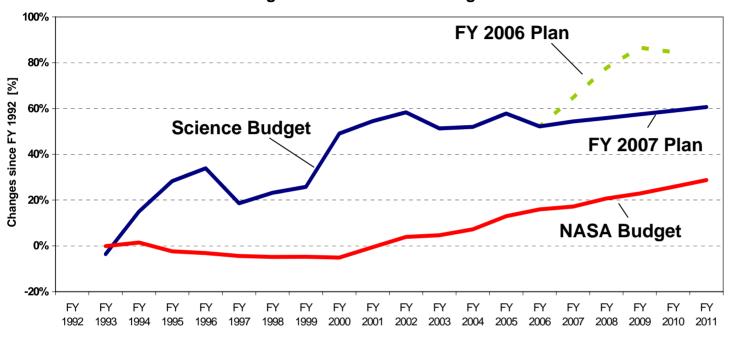
(Budget Authority in Millions)	FY 2006 Op Plan	FY 2007	Change	FY 2008	FY 2009	FY 2010	FY 2011
SCIENCE, AERO & EXPLOR.	9,721.3	10,524.4	8.3%	10,594.4	11,136.4	11,747.0	15,526.4
SCIENCE	5,253.7	5,330.0		5,383.1	5,437.1	5,491.5	5,546.4
Solar System Exploration	1,582.3	1,610.2		1,598.6	1,840.4	1,899.6	1,846.7
Universe	1,507.9	1,509.2		1,500.9	1,307.9	1,276.1	1,309.7
Earth-Sun System	2,163.5	2,210.6		2,283.7	2,288.9	2,315.8	2,390.0
EXPLORATION SYSTEMS	3,050.1	3,978.3		3,981.6	4,499.8	5,055.9	8,775.1
Constellation Systems	1,733.5	3,057.6		3,067.6	3,612.9	4,083.8	7,698.4
Exploration Sys Res & Tech	692.5	646.1		632.2	605.1	679.2	764.6
Human Sys Reseach & Tech	624.1	274.6		281.8	281.8	292.8	312.1
AERONAUTICS RESEARCH	884.1	724.4		731.8	732.4	722.8	722.7
CROSS-AGENCY SUPPORT PR	533.5	491.7		497.9	467.1	476.8	482.2
Education Programs	162.4	153.3		152.4	153.1	154.0	153.3
Advanced Business Systems	156.3	108.2		106.9	73.8	78.5	80.6
Innovative Partnerships	214.8	197.9		205.5	206.2	209.7	212.9
Shared Capabilities	0.0	32.2		33.1	33.9	34.7	35.5
<b>EXPLORATION CAPABILITIES</b>	6,869.7	6,234.4	-4.4%	6,680.4	6,442.3	6,242.9	2,896.7
SPACE OPERATIONS	6,869.7	6,234.4		6,680.4	6,442.3	6,242.9	2,896.7
International Space Station	1,753.4	1,811.3		2,200.3	2,255.6	2,197.1	2,360.8
Space Shuttle*	4,777.5	4,056.7		4,087.3	3,794.8	3,651.1	146.7
Space and Flight Support	338.8	366.5		392.8	392.0	394.7	389.2
INSPECTOR GENERAL	32.0	33.5	4.7%	34.6	35.5	36.4	37.3
TOTAL AGENCY	16,623.0	16,792.3	3.2%	17,309.4	17,614.2	18,026.3	18,460.4
yr to yr increase**			3.2%	3.1%	1.8%	2.3%	2.4%

<sup>\*</sup> Includes emergency supplemental of \$349.8 million in FY 2006.

<sup>\*\*</sup> Not including emergency supplemental of \$349.8 in FY 2006.

# **Science Budget Growth History**



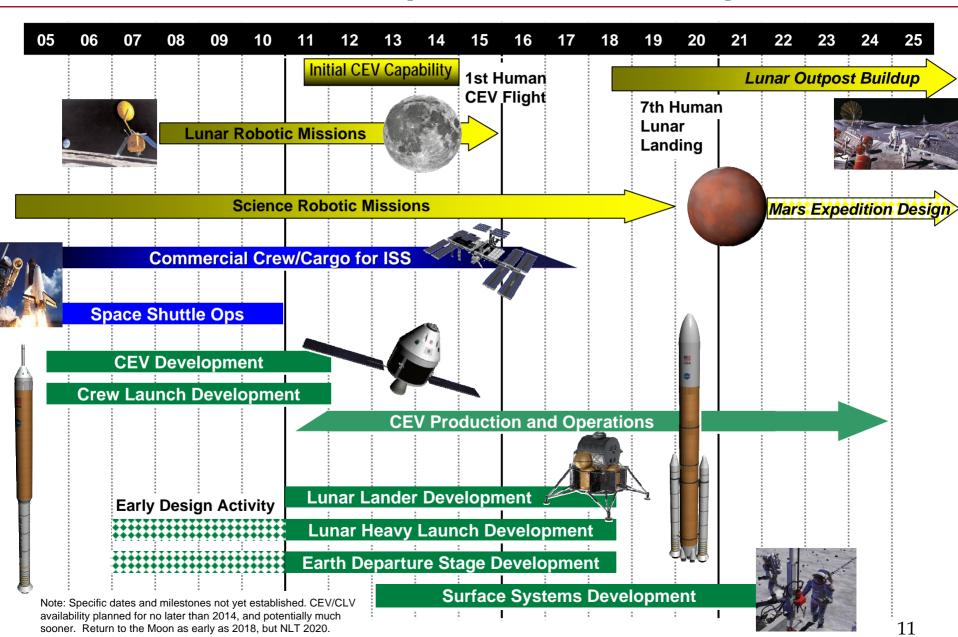


#### NOTE:

Historical Data are normalized for comparison purposes by removing JIMO, nuclear power, robotic lunar exploration and cross-enterprise technology, and are also normalized to include ELV costs (FY 1996 and prior), DSN (FY 2003 and prior), and full cost (FY 2002 and prior).

- NASA's Science budget has grown much faster than NASA's total budget, and the Science portion of the NASA budget has significantly increased:
  - In 1992, Science was 24% of the NASA budget.
  - Science is 32% of the NASA budget in the FY 2007 request.
- The rate of growth for Science previously planned for the five year runout from the FY 2006 budget is not sustainable, given the priority to safely complete ISS assembly to fulfill International Partner agreements and retire the Shuttle, within the resources provided.
- Science growth is therefore moderated to 1.5% in FY 2007 and 1% thereafter.

### **NASA's Exploration Roadmap**



# **NASA Workforce Strategy**

- The President's Vision for Space Exploration is a unique government endeavor.
  - The Vision includes the retirement of the Space Shuttle, completion of the International Space Station, a new Crew Exploration Vehicle, a return to the Moon, and voyage to Mars and other destinations.
- Ten Healthy Centers NASA's civil servants and all NASA field Centers are critical to accomplishment of the Vision.
  - It is imperative to maintain a proper balance of the workload across NASA
     Centers to maximize the effectiveness of the overall organization.
  - NASA as an Agency is committed to achieving ten healthy centers -- Centers now report to the Administrator rather than to Mission Directorates.
- Overall objective is to transform the size and composition of the workforce so that it is viable in a dynamic environment for the long term of the Vision. The Vision for Space Exploration requires that NASA maintain technical competence in its career civil service workforce for decades.
  - Ten healthy field centers are required to support the Vision, and the competence of their workforce is maintained by performing cutting edge work.
  - NASA is adjusting the competition model to provide for assignment of work to centers to adequately sustain their health in assigned mission areas.
  - NASA must carefully manage its skill mix to avoid excess capacity while meeting requirements.

### NASA Workforce Strategy (continued)

- Uncovered capacity in the workforce is a longstanding challenge for NASA that has been influenced by several key factors:
  - Cancellation of the Space Launch Initiative and Orbital Space Plane programs,
  - Reduction in Aeronautics program funding,
  - Restructuring of the Science program and reduction in planned funding, and
  - Implementation of the Vision for Space Exploration, including redirection of technology funding to major development activities.
- NASA has already taken actions through the fall of 2005 in several areas, successfully addressing half the uncovered capacity challenge:
  - Buyouts reduced workforce by ~650,
  - Job fairs made skill mix adjustments across the centers for ~100 FTE,
  - Adjusting assignments between civil service and contractor workforce, and
  - Freezing hiring combined with normal (non-buyout) attrition.
- NASA will address the remaining challenge of about 1,000 FTE in 2007 by continuing ongoing actions, and employing other key strategies:
  - Assign new projects to field centers to strengthen their base of in-house work.
  - Shared Capability Assets Program will help stabilize specialized workforces.
  - Move existing work packages between centers (moving work to the people) to meet strategic needs.
  - Retrain the workforce as needed to develop new skills.
  - Targeted reduction in force (as a last resort) consistent with statutory constraints.

### President's Management Agenda

	Human Capital	Competitive Sourcing	Financial Performance	E-Government	Budget and Performance Integration	Federal Real Property Management
Status	GREEN	GREEN	RED	GREEN	GREEN	YELLOW
Progress	GREEN	GREEN	RED	GREEN	GREEN	GREEN

Scorecard status as of December 31, 2005

- <u>Human Capital</u>. Implemented human capital plan, established accountability system, and demonstrated distinctions in employee performance using a comprehensive awards system. OPM provisional certification for its SES and SL/ST performance appraisal system.
- <u>Competitive Sourcing</u>. Competitive sourcing plan established; announced two standard competitions involving more than 230 positions.
- <u>Financial Performance</u>. Significant challenges in improving Agency financial reporting; data reconciliation issues due to the conversion from the old to the new systems presented challenges in preparing NASA's FY03 and FY04 financial statements. NASA has an aggressive action plan to correct deficiencies.
- **E-Government**. NASA has an IT architecture in place to guide Agency investment and strengthen IT security. All of NASA's major IT systems are now operating within 10 percent of planned budget and schedule.
- <u>Budget and Performance Integration</u>. Use performance information and full-cost considerations to develop budget requests and inform management decisions.
- <u>Federal Real Property Management.</u> NASA uses its Asset Management Plan as a tool to integrate real property considerations into the Agency's corporate decision-making process. NASA is also an active participant on the Federal Real Property Council, which helps inform and develop government-wide best practices.

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### **Next Steps**

- NASA is aggressively working to identify synergies between the Space Shuttle Program and the development activities of the Crew Exploration Vehicle and launch systems.
- NASA is continuing to analyze and set priorities for what is needed to ensure NASA has ten healthy centers to carry out our mission of space exploration, scientific discovery, and aeronautics research.
  - Infrastructure and assets
  - Center and Corporate General and Administrative costs
  - Workforce
- NASA is continuing to refine program plans and improve cost estimates to ensure we have executable missions within the resources available to control cost growth.